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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/773,328

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Masao Kato

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EXAMINER

PARK, CHAN S

ART UNIT

PAPER NUMBER

2625

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/773,328	Applicant(s) KATO ET AL.	
	Examiner CHAN S. PARK	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20,22-26,28,29,35,37-41,43,44,50 and 52-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20,22-26,28,29,35,37-41,43,44,50 and 52-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/3/08 has been entered.

Response to Amendment

2. Applicant's amendment was received on 7/3/08, and has been entered and made of record. Currently, **claims 20, 22-26, 28, 29, 35, 37-41, 43, 44, 50, 52-68** are pending.

Response to Arguments

3. Applicant's arguments with respect to **claims 20, 22-26, 28, 29, 35, 37-41, 43, 44, 50, 52-68** have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

4. Claims are objected to because of the following informalities:

Claim 22, line 1, "according to claim 21" should be -- according to claim 20 --;

Claim 23, line 1, "according to claim 21" should be -- according to claim 20 --;

Claim 28, line 1, "according to claim 27" should be -- according to claim 25 --;

Claim 28, line 1, "according to claim 27" should be -- according to claim 25 --;

Claim 53, line 2, "a data file" should be -- the data file --;

Claim 57, line 2, "a data file" should be -- the data file --;

Claim 60, line 2, "a data file" should be -- the data file --;

Claim 63, line 2, "a data file" should be -- the data file --; and

Claim 56, line 2, "a data file" should be -- the data file --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 20, 25, 35, 40 and 50 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims recite the limitation of “determining the kind of the feature amount in accordance with the function information received by said reception unit/step”. The examiner finds no support in the Specification where the feature amount is determined based on the received function information. Referring to Paragraphs 0190~0194, it appears that the feature amount is calculated based on the respective pixels of an image, not based on the received capability information nor the recited function. Clarification/explanation from the Specification is respectfully requested.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 20, 25, 35, 40 and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims recite the limitation of “determining the kind of the feature amount in accordance with the function information received by said reception unit/step”. It is unclear if the kind of feature amount is determined in order to extract the feature amount or to describe the feature amount extracted by said extraction unit. In other words, does the function information determine the extraction of the feature amount or the generation of the data file describing the extracted feature amount? Furthermore, how can the kind of feature amount be determined if it is already extracted? Clarification/explanation from the Specification is respectfully requested.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 20, 22-26, 28, 29, 35, 37-41, 43, 44, 50, 52-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. U.S. Patent Application Pub. No. 2001/0048534 (hereinafter Tanaka) in view of Breidenbach et al. U.S. Patent Application Pub. No. 2003/0084085 (hereinafter Breidenbach) and in further in view of Ichikawa et al. U.S. Patent Application Pub. No. 2004/0201727 (hereinafter Ichikawa).

With respect to claim 20, Tanaka discloses a printing system (figs. 1 & 8) in which an image sensing apparatus (digital camera) and a printing apparatus (printer) directly communicate with each other, and said printing apparatus prints an image transmitted from the image sensing apparatus (S146 in fig. 8), wherein said image sensing apparatus comprises:

a generation unit configured to generate a data file (print file 140 in fig. 7), which is independent of an image file, describing data for image correction (paragraph 61);
and

a first transmission unit configured to transmit the image file and the data file to said printing apparatus (transmitting the print file in step 116 & image file in S144);

said printing apparatus comprises:

a second reception unit configured to receive the image file and the data file transmitted by said first transmission unit (receiving the print file in step 116 & image file in S144);

a correction unit configured to correct image data of the image file received by said first reception unit on the basis of the data file (correcting the image file in accordance with the print condition defined in fig. 7 & paragraph 108); and

a printing unit configured to print an image in accordance with the image data corrected by said correction unit (printing the image file in accordance with the print condition defined in fig. 7 & paragraph 108),

wherein the data file is transmitted from said image sensing apparatus to said printing apparatus before the image file is transmitted from said image sensing apparatus to said printing apparatus (note that the print file is transmitted before the image file in accordance with fig. 8).

Tanaka, however, does not explicitly teach a first reception unit configured to receive function information of the printing apparatus from the printing apparatus and a second transmission unit for transmitting the function information of said printing apparatus from said printing apparatus to said image sensing apparatus.

Breidenbach discloses a printing system in which an image sensing apparatus and a printing apparatus directly communicate with each other, wherein said image sensing apparatus receives function information of the printing apparatus from the printing apparatus and generates the print file in accordance with the function

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information received (digital camera receiving the capability information of the printer in paragraph 46).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing system of Tanaka to include the capability exchange method as taught by Breidenbach.

The suggestion/motivation for doing so would have been to provide the user with the printer capability information in order to select appropriate print job settings. For example, with this capability exchange method, the user would not select a printer setting that is not supported by the printer.

The combination discloses the system, but it does not explicitly disclose said image sensing apparatus further comprising an extraction unit configured to analyze a sensed image and extract a feature amount from the sensed image, wherein said generation unit generates the data file describing the feature amount extracted by said extraction unit.

Ichikawa discloses an image sensing apparatus further comprising an extraction unit configured to analyze a sensed image and extract a feature amount from the sensed image, wherein said generation unit generates the data file describing the feature amount extracted by said extraction unit to notify the printer for printing (paragraphs 130~134).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Tanaka to include the extraction unit as taught by Ichikawa.

The suggestion/motivation for doing so would have been to provide detail information about the sensed image for applying appropriate image processing at the printer for printing.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 20.

With respect to claim 22, Ichikawa discloses said image sensing apparatus further comprising a designation unit configured to designate an image to be transmitted to said printing apparatus, wherein said extraction unit extracts the feature amount from the image designated by said designation unit (paragraphs 130~134).

With respect to claim 23, Ichikawa discloses said image sensing apparatus wherein said extraction unit generates a histogram of brightness, saturation, or hue as the feature amount (paragraphs 130~134).

With respect to claim 24, Tanaka discloses the system wherein said printing apparatus determines a parameter for correction in accordance with the data file and corrects the received image using the determined parameter (correcting the image file in accordance with the print condition defined in fig. 7 & paragraph 108).

With respect to claim 25, Tanaka discloses an image sensing apparatus which can communicate with a printing apparatus, said image sensing apparatus comprising:

a generation unit configured to generate a data file (print file 140 in fig. 7), which is independent of an image file, describing data for image correction (paragraph 61); and

a transmission unit configured to transmit the image file and the data file to said printing apparatus (transmitting the print file in step 116 & image file in S144);

wherein the data file is transmitted from said image sensing apparatus to said printing apparatus before the image file is transmitted from said image sensing apparatus to said printing apparatus (note that the print file is transmitted before the image file in accordance with fig. 8).

Tanaka, however, does not explicitly teach a reception unit configured to receive function information of the printing apparatus from the printing apparatus.

Breidenbach discloses a printing system in which an image sensing apparatus and a printing apparatus directly communicate with each other, wherein said image sensing apparatus receives function information of the printing apparatus from the printing apparatus and generates the print file in accordance with the function information received (digital camera receiving the capability information of the printer in paragraph 46).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing system of Tanaka to include the capability exchange method as taught by Breidenbach.

The suggestion/motivation for doing so would have been to provide the user with the printer capability information in order to select appropriate print job settings. For example, with this capability exchange method, the user would not select a printer setting that is not supported by the printer.

The combination discloses the system, but it does not explicitly disclose said image sensing apparatus further comprising an extraction unit configured to analyze a sensed image and extract a feature amount from the sensed image, wherein said

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generation unit generates the data file describing the feature amount extracted by said extraction unit.

Ichikawa discloses an image sensing apparatus further comprising an extraction unit configured to analyze a sensed image and extract a feature amount from the sensed image, wherein said generation unit generates the data file describing the feature amount extracted by said extraction unit to notify the printer for printing (paragraphs 130~134).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Tanaka to include the extraction unit as taught by Ichikawa.

The suggestion/motivation for doing so would have been to provide detail information about the sensed image for applying appropriate image processing at the printer for printing.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 25.

With respect to claims 26 and 28-29, arguments analogous to those presented for claims 22-23, are applicable.

With respect to claim 35, arguments analogous to those presented for claim 20, are applicable.

With respect to claims 37-38, arguments analogous to those presented for claims 22-23, are applicable.

With respect to claim 39, arguments analogous to those presented for claim 24, are applicable.

With respect to claims 40 and 50, arguments analogous to those presented for claim 25, are applicable.

With respect to claim 41, arguments analogous to those presented for claim 26, are applicable.

With respect to claims 43-44, arguments analogous to those presented for claims 22-23, are applicable.

With respect to claim 52, the combination discloses the printing system according to claim 20, wherein said printing apparatus further comprises:

a second extraction unit configured to analyze image data of the image file received by said second reception unit and extract a second feature amount of the image data (paragraphs 130~134 of Ichikawa); and

a second correcting unit configured to correct the image data of the image file received by said second reception unit using at least one of the feature amount described in the data file received from said image sensing apparatus by said second reception unit and the second feature amount extracted by said second extraction unit (correcting the image file in accordance with the print condition defined in fig. 7 & paragraph 108 of Tanaka).

With respect to claim 53, the combination discloses the printing system according to claim 20, wherein said image sensing apparatus further comprising a recording unit configured to record, as a data file, information related to the feature

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amount extracted by said extraction unit into a storage medium which is used for storing image files (paragraphs 130~134 of Ichikawa).

With respect to claim 54, the combination discloses the printing system according to claim 53, wherein said image sensing apparatus further comprises a job transmission unit configured to transmit a print job designating an image to be printed to said printing apparatus, wherein the print job describes information of an image file to be printed and information related to the feature amount stored as the data file in the storage medium (transmitting the print file in step 116 & image file in S144 of Tanaka).

With respect to claim 55, the combination discloses the printing system according to claim 54, wherein the print job describes information for specifying an image file to be printed and information for specifying the data file (transmitting the print file in step 116 & image file in S144 of Tanaka).

With respect to claims 56-59, arguments analogous to those presented for claims 52-55, are applicable.

With respect to claims 60-62, arguments analogous to those presented for claims 52-55, are applicable.

With respect to claims 63-65, arguments analogous to those presented for claims 52-55, are applicable.

With respect to claims 66-68, arguments analogous to those presented for claims 52-55, are applicable.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571)272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHAN S PARK/
Examiner, Art Unit 2625

August 28, 2008